

REMARKS/ARGUMENTS

Independent Claims 8, 9 and 21 have been amended to specify that the functional unit on the user's side is a Channel Access Client (CAC) that is implemented as a software driver and that the functional unit on the network side is in the form of an Intelligent Channel Access and Management Unit (ICAMU). The CAC separates the recognized applications by means of software. For the reasons set forth below, it is submitted that the amended claims are neither anticipated by Basu nor rendered obvious over Basu itself or Basu combined with any of the secondary references.

Turning first to Claim 21, this claim calls for not aggregating completely in the ICAMU some application-specific components of the data streams and then further transmitting the non-aggregated components at least in part as separate data streams. Contrary to what is claimed, Basu discloses in column 8, lines 47-62, Figure 3:

"A receive bandwidth assembly block 316 receives the data from the receive modem block 340 and assembles the data as required. When packets of data, for example TCP/IP packets, are received according to the system of the present invention, such packets may have been segmented prior to their transmission. Upon receipt, the segmented packets pass through a plurality of the receive modems where the segmented packets are demodulated and then passed to the receive bandwidth assembly block 316. The receive bandwidth assembly block 316 then assembles the segmented packets into correctly assembled data block(s). After the data is correctly assembled, the data is passed to decompression block 318 where it is decompressed and then to the electronics interface unit 314. From the electronics interface unit 314, the [assembled] data is passed to other circuitry contained in the base station. (Emphasis and bracketing added).

Thus, Basu discloses that the data is always reassembled before being passed to other circuitry contained in the base station. Claim 21 differs in this regard, however, in that it calls for not aggregating completely in the ICAMU some application-specific components of the data streams and then further transmitting the non-aggregated components at least in part as a separate data stream within the network. In the invention as defined in Claim 21, the data that is not aggregated in the ICAMU can be transmitted to the intended receiver, such as another mobile unit, and then reassembled there by the CAC in such mobile unit.

Each of Claims 8, 9 and 21 also define the functional unit on the user's side as being a Channel Access Client (CAC) implemented as a software driver and claim the functional unit on the core network side as an Intelligent Channel Access and Management Unit (ICAMU).

Basu does not disclose this. With reference to Figures 4A and 4B, Basu utilizes in each wireless mobile unit a multimedia interface unit 402 that comprises a plurality of physically independent channels. The data is segmented in block 408 and fed in parallel to a plurality of independent modems 412 in the form of physical units. The modems are connected to a plurality of independent radio units 414, each of which transmits a definite data segment to a receiving side of the network. On the receiving side there are also a plurality of radio units, modems, etc. Contrary to this, in the present invention the CAC on the mobile unit side is implemented as a software driver which enables a conventional mobile unit to be utilized without a change in the hardware. The data is separated into its transmission-oriented components, e.g. speech, IP-data, etc., and transmitted separately over a plurality of transmission channels. For this, however, only one radio unit is necessary. The transmission channels are logical channels, i.e., the transmission channels may use the same carrier frequency but different time slots on the frequency such as TDMA (Time Divisional Multiple Access transmission). Alternatively, the transmission channels may use the same carrier frequency and a spread spectrum technique such as CDMA (Code Division Multiple Access). The advantage of the claimed invention over Basu is that existing and low cost hardware can be utilized, in particular conventional mobile telephones. There is no need to implement a plurality of independent physical transmission channels and just an additional channel access client (CAC) has to be implemented in the mobile unit by means of software, which can easily be reconfigured by programming.

On the core network side, the ICAMU is preferably a hardware implementation and is located between the Base Station Subsystems BSS and the Switching Units MSC and GSSM. Thus, there is no need to make any hardware changes in the BSS, MSC and GSSM and no additional transceiver units or modems have to be implemented, as is taught by Basu.

Since Basu et al fails to disclose what is set forth in independent Claims 8, 9 and 21, these claims are not anticipated by Basu. Furthermore, the system disclosed by Basu takes a decidedly different tack in that it is implemented by means of a plurality of modems and radio units as opposed to the software driver CAC utilized in the claimed invention. Thus, the claims would not be obvious over Basu within the meaning of 35 U.S.C. § 103.

Independent Claim 8 is further distinguished from Basu in that it calls for the ICAMU on the core network side to provide optional conversion of the data streams from the user to other standardized multimedia or protocol forms. With regard to the Examiner's statement

that it is well known in the art that the base station would convert data into standardized multimedia or protocol forms, Claim 8 requires that this conversion be accomplished in the ICAMU. It is not well known to convert protocol forms in an ICAMU at a point between the BSS and MSC/GSSM, for example.

For the reasons set forth above, it is submitted that none of the claims is either anticipated or rendered obvious by Basu et al whether considered singly or in combination with one or more of the secondary references. The claims have been amended to sharpen their focus and to avoid a clear differentiation from Basu et al. It is submitted that Applicant is entitled to the more limited coverage as now defined by the amended claims and it is requested the Examiner reconsider and withdraw the rejections under 35 U.S.C. §§ 102 and 103.

Although it is believed that the application is in condition for allowance, it is requested that the Examiner telephone the undersigned if she believes that further issues remain.

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In the event Applicants have overlooked the need for an extension of time, payment of fee, or additional payment of fee, Applicants hereby petition therefor and authorize that any charges be made to Deposit Account No. 02-0385, Baker & Daniels.

Respectfully submitted,

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